Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

In the Claims:

1. (original) A method for treatment of an apoptosis-related disease in a subject comprising administering to said subject a therapeutically effective amount of an inhibitor of the IDH polypeptide, in a dosage sufficient to inhibit IDH so as to thereby treat the subject.

2. (original) A method according to claim 1 wherein the inhibitor is administered in conjunction with a chemotherapeutic agent.

3. (original) A method according to claim 1 wherein the inhibitor is an antibody.

4. (original) A method according to claim 1 wherein the inhibitor is a chemical molecule selected from the group consisting of 2-(4-bromo-2,3-dioxobutylthio)-1, N6-ethenoadenosine 2',5'-bisphosphate, NADP oxoglutatrate, o-(carboxymethyl) oxalohydroxamate, oxalylglycine, 3-bromo-2-ketoglutarate, beta-mercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-hydroxyglutarate, adriamycin and alpha-methylisocitrate.

5. (original) A method according to claim 1 wherein the inhibitor is an AS fragment comprising consecutive nucleotides having the sequence set forth in SEQ ID NO:5.

6. (original) A method according to claim 1 wherein the apoptosis-related disease is a cancer.

7. (original) A method for potentiating a chemotherapeutic treatment of an apoptosis-related disease in a subject comprising administering to said subject a therapeutically effective amount of an inhibitor of the human IDH polypeptide in conjunction with a chemotherapeutic agent.

8. (original) A method according to claim 7 wherein the inhibitor is an antibody.

9. (original) A method according to claim 7 wherein the inhibitor is a chemical molecule selected from the group consisting of 2-(4-bromo-2,3-dioxobutylthio)-1, N6-ethenoadenosine 2',5'-bisphosphate, NADP oxoglutatrate, o-(carboxymethyl) oxalohydroxamate, oxalylglycine, 3-bromo-2-ketoglutarate, beta-mercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-ketoglutarate, beta-methylmercapto-alpha-hydroxyglutarate, adriamycin and alpha-methylisocitrate.

10. (original) A method according to claim 7 wherein the inhibitor is an AS fragment comprising consecutive nucleotides having the sequence set forth in SEQ ID NO:5.

11. (original) A method according to claim 7 wherein the apoptosis-related disease is a cancer.

12. (original) An antisense oligonucleotide capable of inhibiting the expression of the IDH polypeptide, having the sequence set forth in SEQ ID NO:5.

13. (original) An expression vector comprising a nucleic acid molecule encoding the antisense oligonucleotide of claim 12.

14. (original) A process for determining the susceptibility of a subject to a chemotherapeutic treatment of an apoptosis-related disease comprising:

(a) providing the average, normal level of the IDH polypeptide in the cells of healthy subjects;

(b) determining the level of the IDH polypeptide in said subject;

(c) comparing the levels obtained in (a) and (b) above, a low level of IDH polypeptide in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to a chemotherapeutic treatment of said apoptosis-related disease.

15. (original) A process for determining the susceptibility of a subject to a chemotherapeutic treatment of an apoptosis-related disease comprising:

(a) providing the average, normal level of mRNA encoding the IDH polypeptide in the cells of healthy subjects;

(b) determining the level of mRNA encoding the IDH polypeptide in said subject;

(c) comparing the levels obtained in (a) and (b) above, a low level of mRNA encoding IDH in said subject as compared to the level in healthy subjects indicating a susceptibility of said subject to a chemotherapeutic treatment of said apoptosis-related disease.

16. (original) A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

(a) determining the level of the IDH polypeptide in the subject prior to a treatment;

(b) determining the level of the IDH polypeptide in the subject after the treatment;

(c) comparing the levels obtained in (a) and (b) above, a high level of IDH polypeptide prior to the treatment as compared to the level after the treatment indicating efficacy of the treatment.

17. (original) A process for determining the efficacy of a chemotherapeutic treatment administered to a subject comprising:

(a) determining the level of the IDH mRNA in the subject prior to a treatment;

(b) determining the level of the IDH mRNA in the subject after the treatment;

(c) comparing the levels obtained in (a) and (b) above, a high level of IDH mRNA prior to the treatment as compared to the level after the treatment indicating efficacy of the treatment.

18. (original) A process of diagnosing a cancer in a subject comprising:

(a) providing the average, normal level of the IDH polypeptide in the cells of healthy subjects;

(b) determining the level of the polypeptide in said subject;

(c) comparing the levels obtained in (a) and (b) above, wherein a high level of the IDH polypeptide in said subject as compared to the level in healthy subjects is indicative of a cancer.

19. (original) A process of diagnosing a cancer in a subject comprising:

(a) providing the average, normal level of a polynucleotide encoding the IDH polypeptide in the cells of healthy subjects;

(b) determining the level of the polynucleotide in said subject;

(c) comparing the levels obtained in (a) and (b) above, wherein a high level of the polynucleotide in said subject as compared to the level in healthy subjects is indicative of a cancer.

20. (original) A process for obtaining a compound which modulates apoptosis in a cell comprising:

(a) providing cells which express the human IDH polypeptide;

(b) contacting said cells with said compound; and

(c) determining the ability of said compound to modulate apoptosis in the cells.

21. (original) A process according to claim 20 comprising:

(a) providing test cells and control cells which express the human IDH polypeptide at a level at which approximately 50% of the cells undergo apoptosis in the presence of an apoptosis-stimulating agent;

(b) contacting said test cells with said compound;

(c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell; and

(d) determining the ability of said compound to modulate apoptosis in the test cell.

22. (original) A process for obtaining a compound which promotes apoptosis in a cell comprising:

(a) providing a test cell which expresses the human IDH polypeptide and a control cell which does not express the human IDH polypeptide;

(b) contacting said cells with said compound;

(c) treating said cells in conjunction with step (b) with an amount of apoptosis-stimulating agent capable of causing apoptosis in the control cell but not in the test cell in the absence of said compound; and

(d) determining the ability of said compound to promote apoptosis in the test cell.

23. (original) A process for obtaining a compound which modulates apoptosis through the human IDH polypeptide comprising:

(a) measuring the activity of the human IDH polypeptide, or a fragment thereof having viability activity,